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A new species of *Alternaria* on *Humulus scandens* from China

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Abstract—A new species of the genus *Alternaria*, *A. humuli-scandens*, on *Humulus scandens* is reported. *A. humuli-scandens* is the first large-spored *Alternaria* species with long filiform rostra reported on plants of *Cannabaceae*. *A. humuli-scandens* is different from all the known species in the genus *Alternaria* based on the morphology and pathogenicity. The type specimen is deposited in the Herbarium of Henan Agricultural University: Fungi (HHAUF).

Key words—taxonomy, hyphomycetes, leaf spots, *Humulus japonicus*

In the course of a survey of mitosporic fungal pathogens of important weeds in China, a new taxon of *Alternaria* was found on *Humulus scandens* [= *Humulus japonicus* Siebold & Zucc.] in Henan Province. It is described as follows.

Alternaria humuli-scandens Meng Zhang, H.Y. Wu & Dong X. Li, **sp. nov.**

Mycobank # MB 512829 fig. 1, plate 1

Conidia solitaria, obclavata vel ovoidea, recta, laevia, pallide brunnea, septa transversa 5–8, septa longitudinalia vel obliqua 2–6, constricta, 47–75 × 14–20.5 µm, rostrum septata, hyalina, 117–195 µm longum, e basi 3–5 µm ad apicem 2 µm diam.

Holotype: $HHAUF_{06}0529=ZM_{06}0529$ [dried cultures on PCA, isolated from leaf spots of *Humulus scandens* (Lour.) Merr.: Zhengzhou, Henan Province, 2006, Coll. Dong X. Li and H.Y. Wu].

Leaf spots irregular, brown, 5–12 mm in diameter. Colonies on PCA grayish-brown, velvety, effuse, sporulating freely. Conidiophores arising singly, terminally or laterally from hyphae, simple, straight or curved, smooth-walled, septate, pale brown, 55–75 × 7–8 µm. Conidia solitary, obclavate or ovoid, base obtuse, straight, pale brown, smooth-walled, with 5–8 transverse septa and 2–6 longitudinal or oblique septa, constricted at some main septa, 47–75

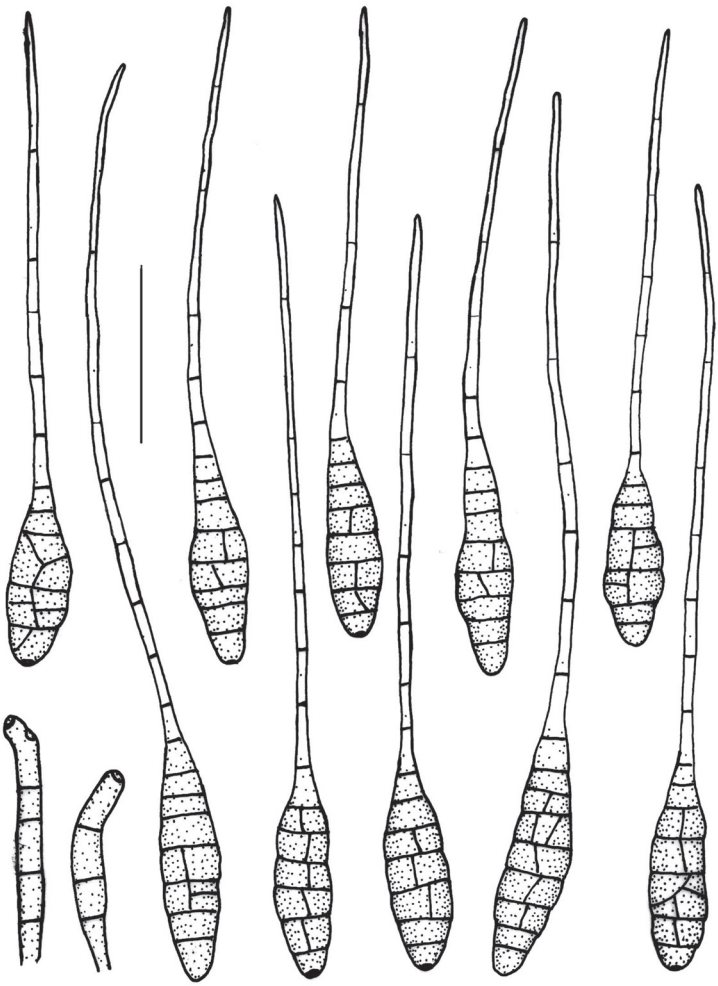

Figure 1. *Alternaria humuli-scandens*
Conidia and conidiophores on PCA. (ex holotype, bar=50μm)

× 14–20.5 μm. The tapering rostra are 117–195 μm long, ca 3–5 μm wide at the base, narrowing throughout most of their length to ca 2 μm, filiform, straight, septate, hyaline.

Comments: Commonly large-spored *Alternaria* species are host specific in family; host ranges can be one of the identification criteria. Up to now, only

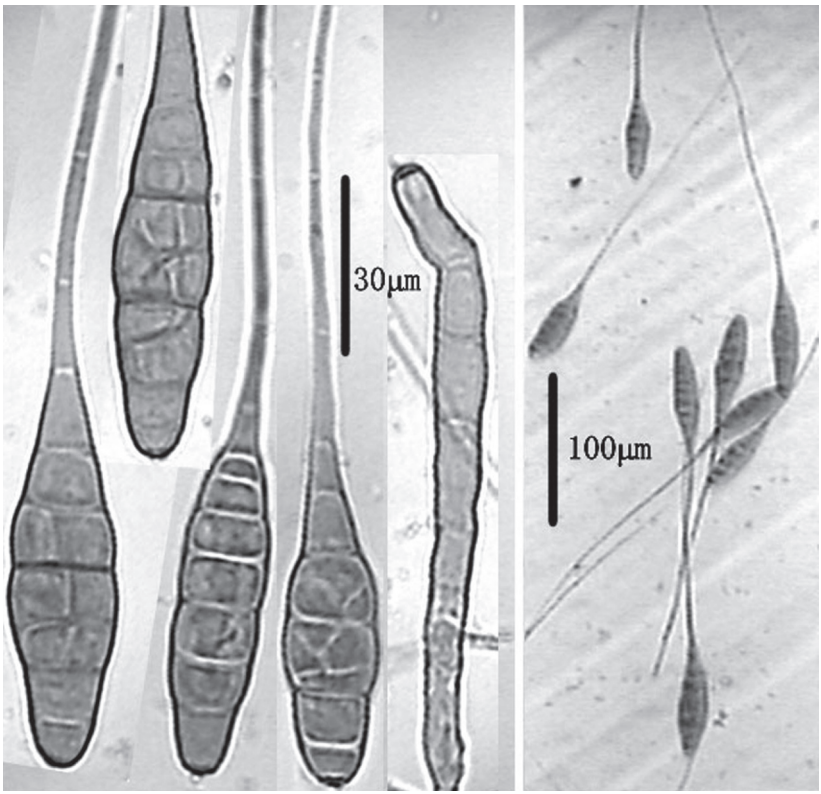

Plate 1 *Alternaria humuli-scandens*
Conidia and conidiophores on PCA. (ex holotype)

Alternaria humuli E.G. Simmons (a small-spored species) has been reported on plants of *Cannabaceae* (Simmons 2002, 2007). *A. humuli-scandens* is the first large-spored *Alternaria* species with long filiform rostra reported on this family. Compared to other species of *Alternaria* on the related host family *Moraceae*, *A. humuli-scandens* is close to *Alternaria fici* Farneti in size range of conidium bodies, but the conidia of the latter have beaks that are short or lacking entirely, while the conidia of *A. humuli-scandens* have long filiform rostra (Farneti 1904, Zhang et al. 2003).

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